



Proposed Stormwater Management Fee: Staff Recommended Framework

November 1, 2016



Why Are We Here?

Respond to state and federal mandates in equitable, fiscally responsible manner.

- Protect and improve the City's waterways and reduce flooding impacts
- Alternative funding to meet increasing cost of stormwater mandates
- Reduce pressure on the General Fund
- Not a question of if we're funding the mandates, but what is the best way to fund the mandates

What is Stormwater Runoff?



ECO-CITY ALEXANDRIA

Only **Rain** Down the Storm Drain!



City's Stormwater Program Timeline

- 1970s: Stormwater detention required
- 1992: Chesapeake Bay Act
- 2003: City's first Municipal Separate Storm Sewer System (MS4) permit
- 2010: Chesapeake Bay TMDL (Total Maximum Daily Load)
 - Set nutrient and sediment 'pollution budget' or 'clean up mandates'
- 2013: Chesapeake Bay TMDL clean up mandates enforced in MS4 permit

City's Stormwater Management Program

- Stormwater Quality
- Flooding Protection and Drainage
- Chesapeake Bay TMDL Cleanup Mandates



Stormwater Management Program



*Catch basin
cleaning,
Prince Street*



*BMP Inspection,
Fire Station 206*

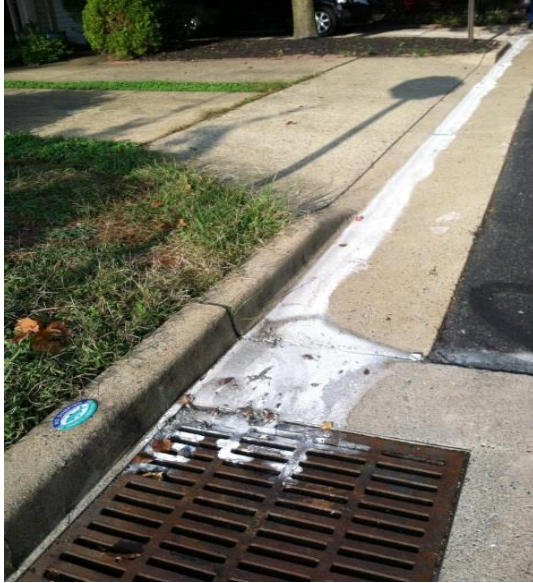


Plan Review



Channel maintenance, Cameron Run

Stormwater Management Program



Cameron Run flooding



Improper concrete washout



Flood warning sign and lights

Stormwater Management Program Recognition



Chesapeake Bay Cleanup Mandates Background

- Nitrogen, Phosphorous & Sediment impairments
- Creates algae blooms, fish kills, impacts submerged aquatic vegetation – Dead Zones
- Impacts recreation, fishing, habitat



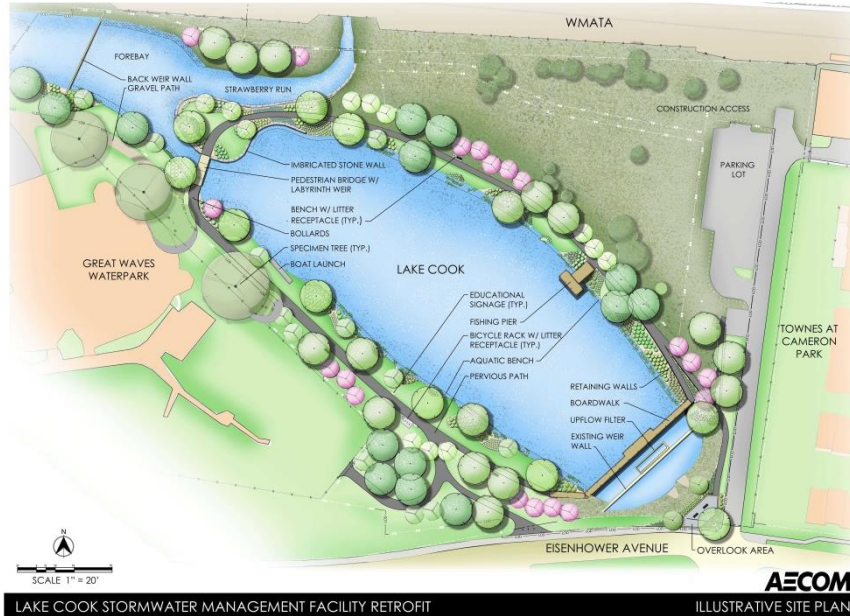
Chesapeake Bay TMDL Cleanup Mandates

- 'Pollution budget' for nutrients & sediment
- Require costly stormwater infrastructure to retrofit nearly ¼ of the City

<i>MS4 Permit Cycle</i>	Portion of Total Reductions	Approx. Acres
Phase I (2013 - 2018)	5%	120 - 130
Phase II (2018 - 2023)	35%	660
Phase III (2023 - 2028)	60%	1,450
Total All Phases	100%	2,140

Stormwater Infrastructure Projects

Lake Cook Retrofit



Ben Brenman Pond Retrofit



Stormwater Infrastructure Projects



Wet Pond, Parc Meridian



Green Roof, Duncan Library



Bioswale, Glebe Road

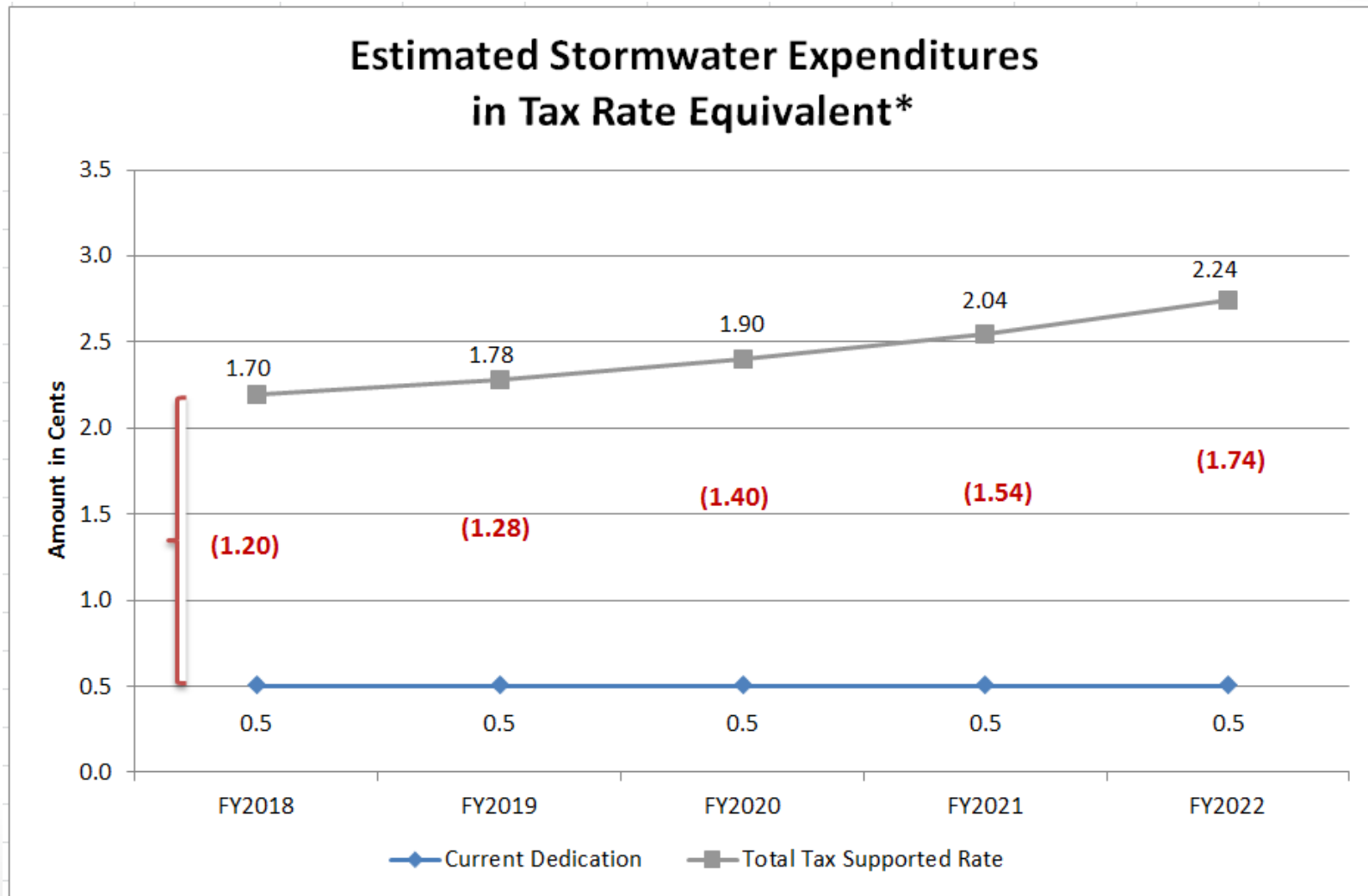


Permeable Pavers and Bioretention Cell, 4MR Park

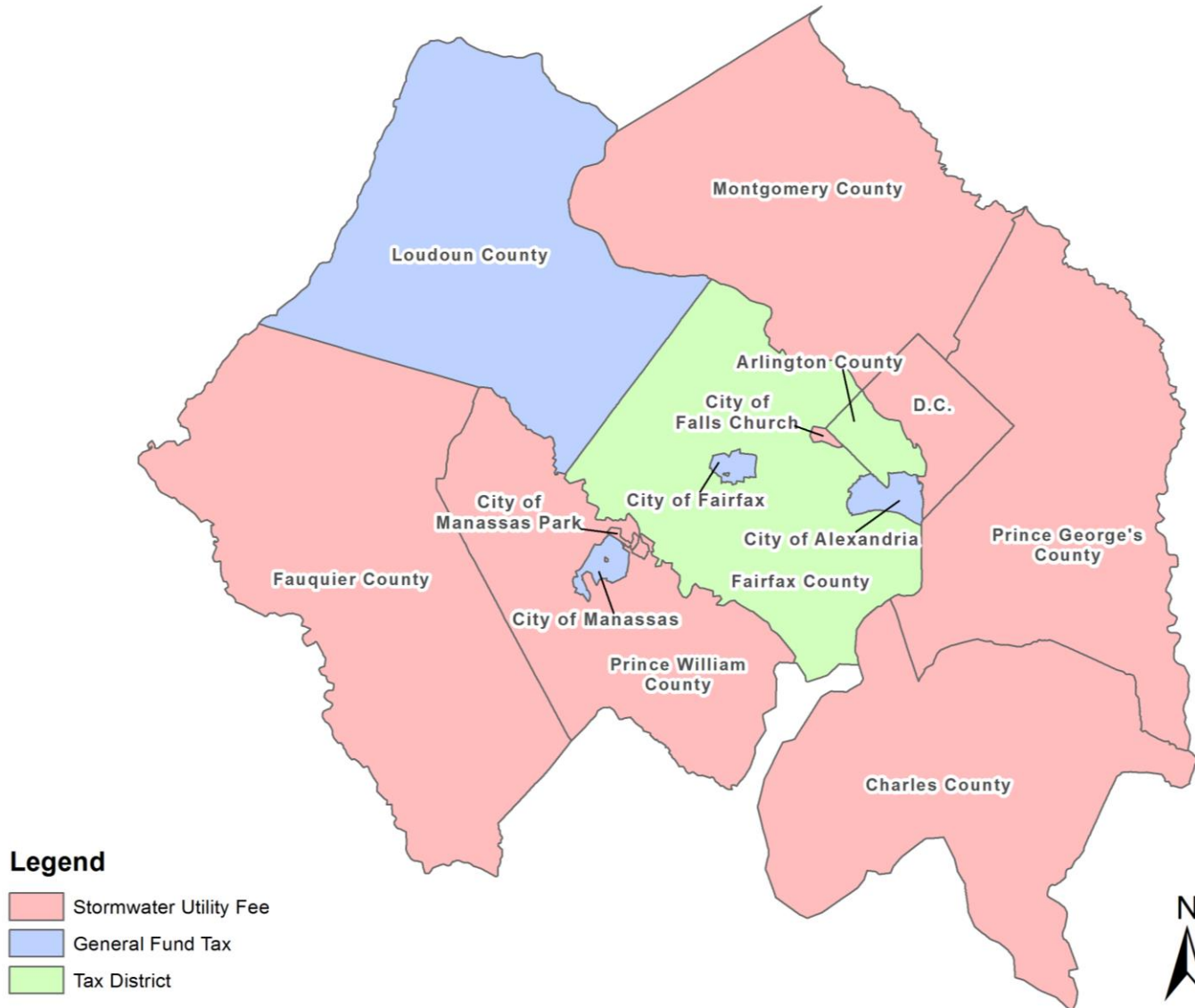
Current Stormwater Funding

- 0.5 cent Real Estate Tax rate dedication
- Additional General Fund contribution
 - Equivalent to an additional 1.2 cents on the Real Estate Tax rate for FY 2018
- Non-City funding sources
 - State Stormwater Local Assistance Fund (SLAF) Grant

Estimated Tax Rate Impact



Regional Stormwater Funding



Stormwater Utility Basics

- Virginia enabling legislation – 1992
 - Fee for service, not a tax
 - Dedicated funding source
 - Revenue can only be used for stormwater
 - Based on a property's impervious area
 - Consistent with Eco-City goals
-
- **S**table
 - **A**dequate
 - **F**lexible
 - **E**quitable

Focus of Staff Recommendations

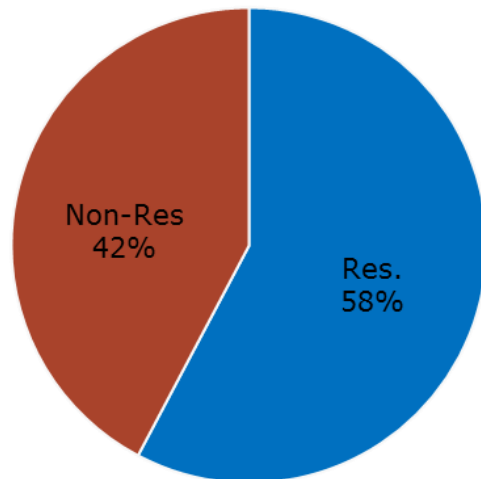
- Follow Council direction to create draft framework
- Capture stormwater program costs
- Create dedicated funding source

Criteria Considered:

- Maximize equity
- Minimize administrative cost
- Maximize understandability

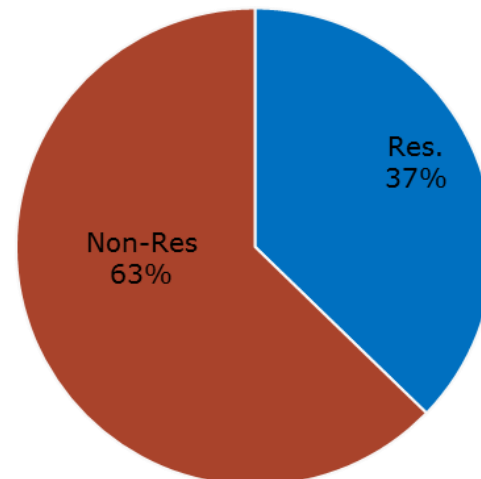
Tax Rate vs. Fee Funding: Creating Equity

Existing SWM Tax Burden



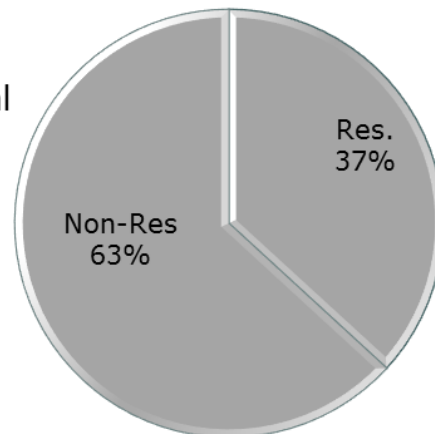
■ Residential ■ Non-Residential

Proposed SWU Burden



■ Residential ■ Non-Residential

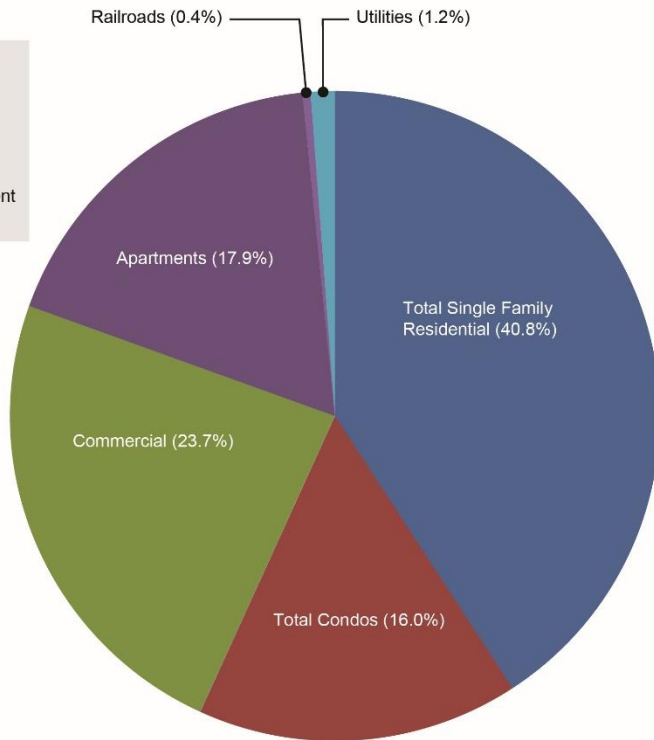
**City-Wide
Impervious Area Distribution**



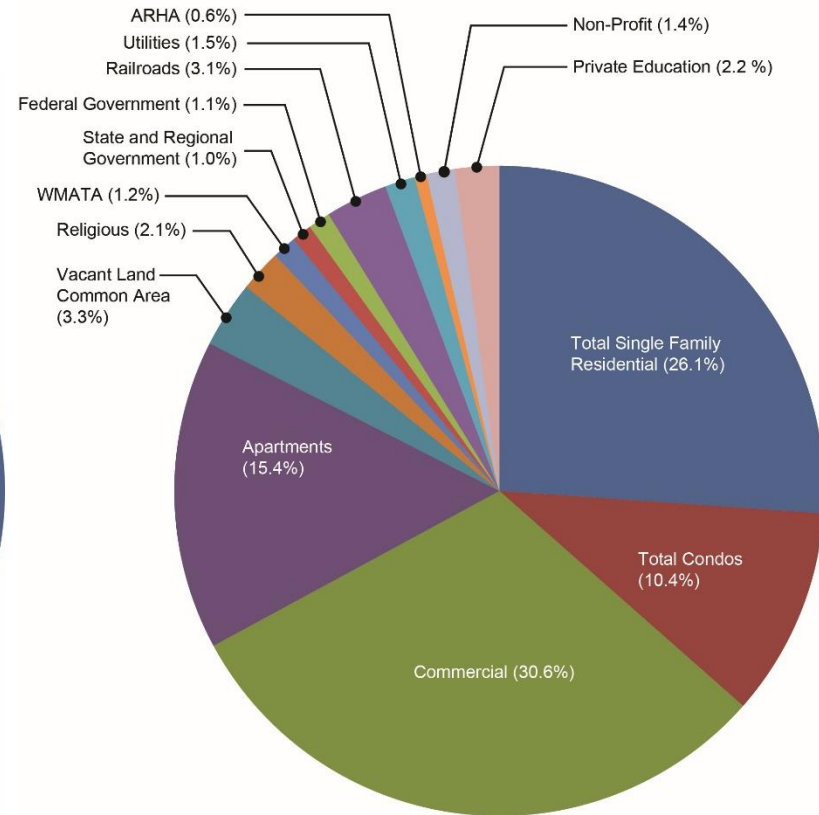
■ Residential ■ Non-Residential

Tax Rate vs. Impervious Contribution

Tax Rate Distribution

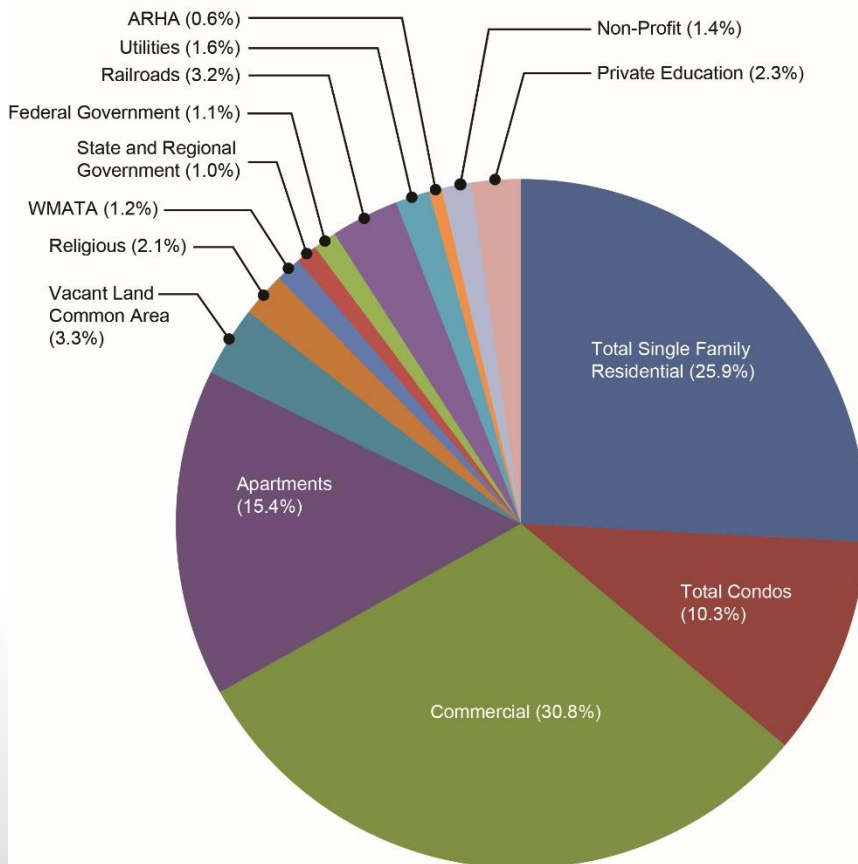


Impervious Area Distribution

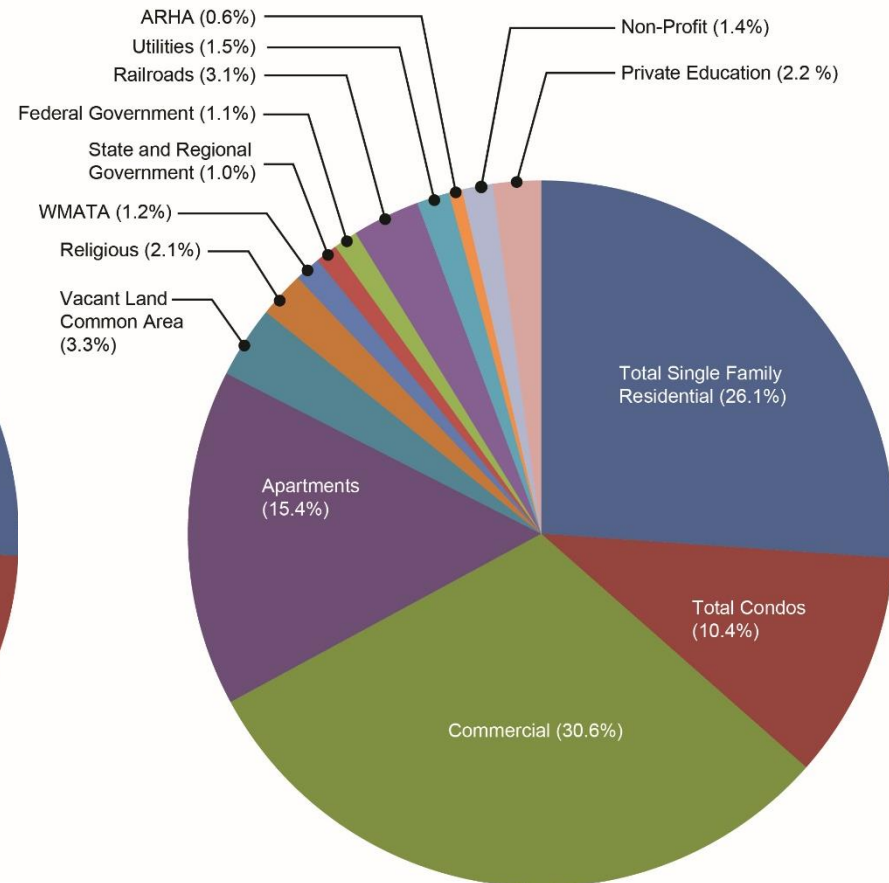


Stormwater Fee and Impervious Area Distribution

Billing Unit Distribution



Impervious Area Distribution



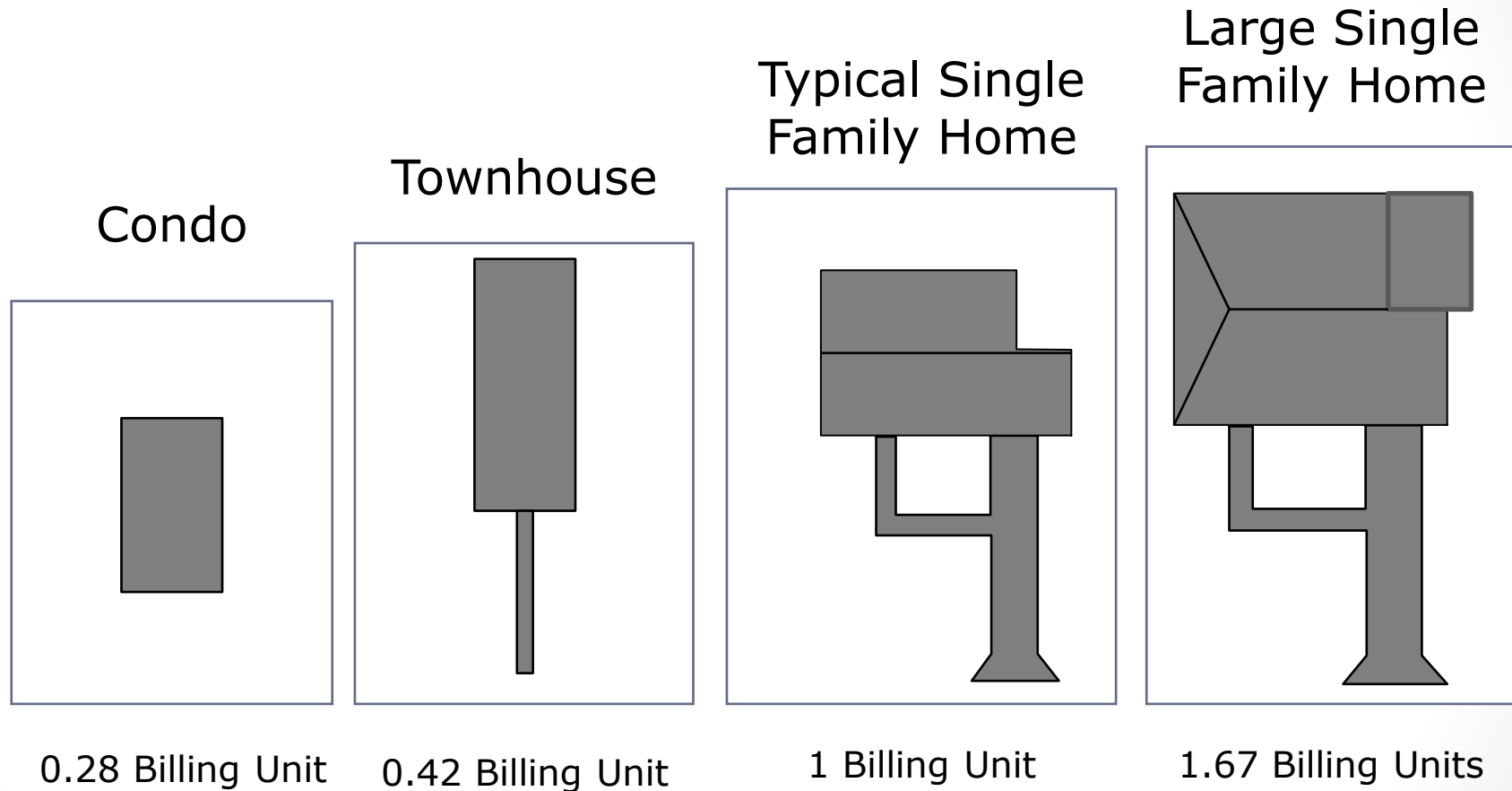
Proposed SWU Draft Framework

- Fee Structure
- Fee Reduction / Credit Policy
- Billing Method

Fee Structure / Billing Units

- Goals: Achieve equity, minimize administrative cost, understandable
- Staff Recommendation:
 - Single Family Residential (SFR) Tiered and Variable Non-Residential (NR) / Multifamily
- Other Options Considered:
 - Square Foot Ranges, Calculate Square Footage
 - Flat Fee (not calculated)

Recommended Fee Structure: Single Family Tiered



- Impervious area footprint, not interior living area
- Proposed 1 Billing Unit = 2,062 s.f. (median typical single family home)

Preliminary Fee Estimates

Tier	Property Type	Billing Unit	Est. Rate Range (yr.)	Est. Rate Range (mo.)
1	Condos	0.28	\$35-\$40	\$3
2	Townhome	0.42	\$50-\$60	\$4-\$5
3	Typical Single Family Home	1	\$120-\$145	\$10-\$12
4	Large Single Family Home	1.67	\$200-\$242	\$18-\$20

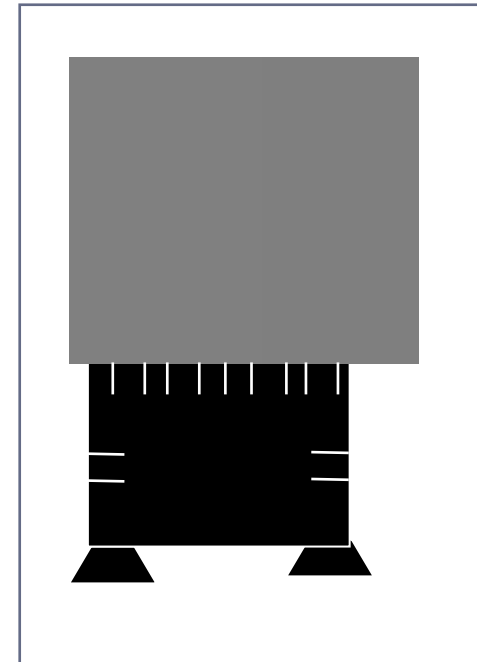
- Based on impervious footprint, not interior square footage
- Preliminary estimate will be further refined

Proposed Non-Residential / Multifamily Calculated Fee

- Based on onsite impervious
- Sample fee calculation

Calculate Variable Fee:

Building and parking lot impervious area	6,168 s.f.
1 Billing Unit	2,062 s.f.
Total Billing Units	$6,168 / 2,062 = 3$
Multiply by rate for 1 billing unit	$3 \times \$120 \text{ to } \145
Total Fee	\$360 to \$435/yr or \$30 to \$36/mo.



Impervious Area
= 6,168 s.f.

Draft Fee Reduction / Credit Policy

- Provide opportunity for fee reduction
- Credits for practices that reduce stormwater flow and pollutant load
- Perform non-structural practices for stormwater benefit and education
- Implement in two phases
- Draft max credit for NR/Multifamily – 45%
- Draft max credit for SFR – 30%

Phase 1: Non-Residential and Residential Credit Policy

- Required during development review
- Designed and built per standards
- Performing as designed with documentation of proper maintenance by certified professional
- Draft max credit - 35%

Types of Practices	Draft Potential Credit Max.	Draft Duration of Credit
Mandatory Stormwater Quality BMPs	20%	Initial application, annual reapplication
Rate Control / Detention Facilities	15%	Initial application, annual reapplication

Some Types of Mandatory BMPs

- Sand Filters: Dry vault, compound, etc.
- Bioretention Filters
- Proprietary
 - Hydrodynamic
 - Filtering
- Vegetated Green Roof
- Planter Boxes
- Infiltration Trenches
- Filter Strips

Draft Phase 1 Credit Policy: Menu of Non-Structural BMPs

- Non-Residential and Multifamily
- Volunteer Activities
- Draft Max Credit - 5%

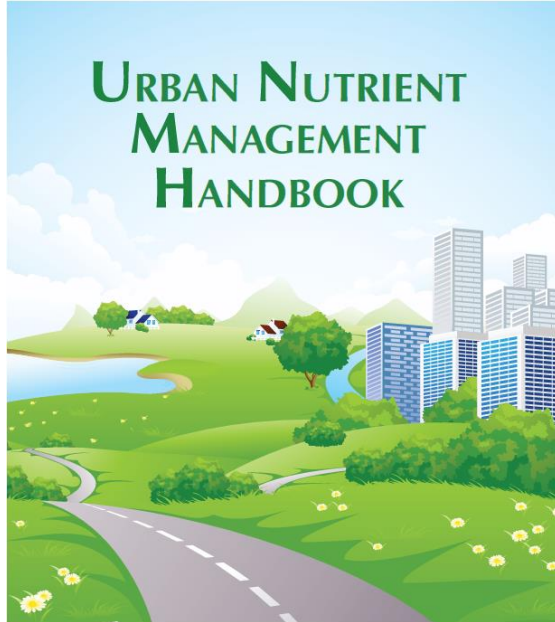
Volunteer Activities	Design Criteria	Draft Credit
Stream Cleanups	TBD	5%
Adopt-a-Stream	TBD	5%
Adopt-a-Block	TBD	5%
Adopt-a-Storm Drain	TBD	5%
Storm Drain Marking	TBD	5%

Draft Phase 1 Credit Policy: Menu of Non-Structural BMPs

- Non-Residential and Multifamily
- Landscaping and Land Management
- Draft Max Credit 10%

BMP Type	Design Criteria	Draft Potential Credit Max.
Native Tree Plantings	TBD	10%
Conservation Landscaping and Xeriscaping	TBD	10%
Green Space Conservation	TBD	10%
Urban Nutrient Management	TBD	10%
Vegetated Filter Strip	TBD	10%

Examples of BMPs



Virginia Cooperative Extension



*Holmes Run
Stream Cleanup*



*Permeable
Pavement:
Reduces
Impervious*

Source: EPA



Beatley Library, Alexandria

Draft Phase 2 Credit Policy: Single Family Residential

- Initial application and annual renewal
- Draft Max Credit 30%

Level 1 BMP (10% max)	Level 2 BMP (20% max)
Native Tree Plantings	Rain Gardens
Conservation Landscaping and Xeriscaping	Pervious Driveway
Green Space Conservation	Pervious Sidewalk
Rain Barrels	Cisterns
Roof Downspout Disconnection	Grass Channel / Swale
No Fertilizer Pledge	Infiltration Practices
	Green Roofs

Phase 2: Non-Residential and Multifamily Credit Policy

'Public-Private Partnership – P3'

- 2016 changes to enabling legislation
- Grant easement for installation of voluntary, structural BMPs per design standards
- Target properties with large impervious footprint
- Economies of scale provides cost benefit

Billing Method

- Goals: Ease of implementation, minimize delinquency, keep administrative cost low, and fewer data needs
- Options Considered:
 - Virginia American Water
 - Alex Renew
 - Stand-alone
- Recommendation: Incorporate into the Real Estate Bill



Tax Rate Equivalent vs. Proposed SWU Range of Rates

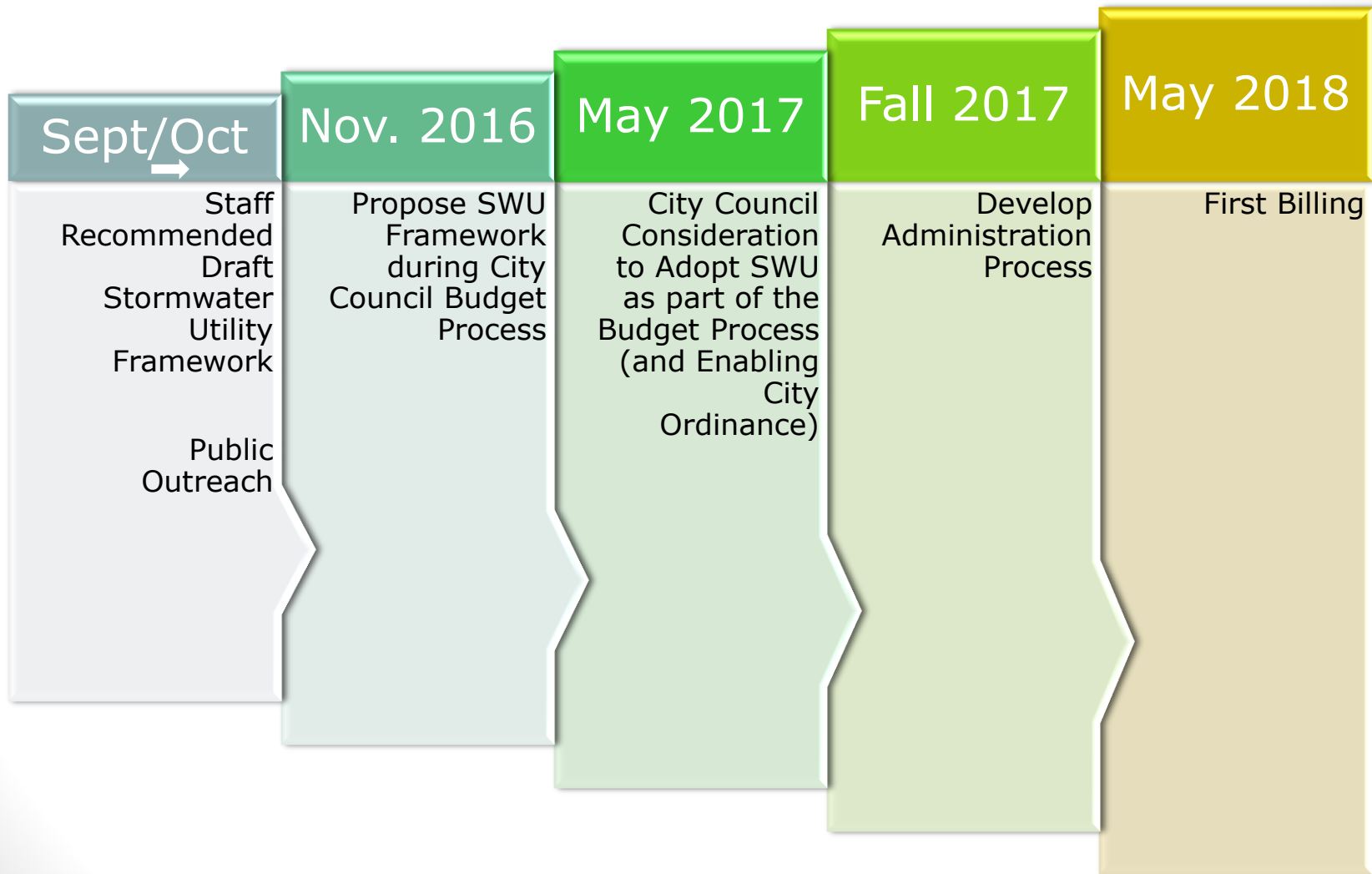
Sample Property Description	Assessed Value (\$millions)	Impervious Areas (ft ²)	Funds to SWM from Real Estate Tax	SWU Fee (at \$120/yr)	SWU Fee (at \$145/yr)
Restaurant	\$2.75	2,184	\$532	\$127	\$154
Apartment Building Complex	\$17.52	106,521	\$3,386	\$6,199	\$7,491
Restaurant with Parking Lot	\$1.25	5,588	\$242	\$325	\$393
Retail Building Complex	\$8.49	38,231	\$1,641	\$2,225	\$2,688
Commercial Building with Parking Lot	\$0.88	12,673	\$169	\$737	\$891
Typical Single Family Home	\$0.75	1,900	\$143	\$120	\$145
Townhome	\$0.50	1,500	\$95	\$50	\$60
Non-Profit Organization	\$1.53	4,079	\$0	\$237	\$287
Church	\$15.87	34,166	\$0	\$1,988	\$2,403
Private School	\$29.74	115,196	\$0	\$6,704	\$8,101

Public Outreach Framework

Council recommended Framework

- New dedicated webpages
- FAQs
- Social media
- Collaborate with Environmental Policy Commission (EPC)
- Targeted groups
 - Residents
 - Chamber of Commerce
 - Federation of Civic Associations, associations
 - Non-profits and Religious
 - Large property owners
 - Large parcel owners

Next Steps



Questions

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